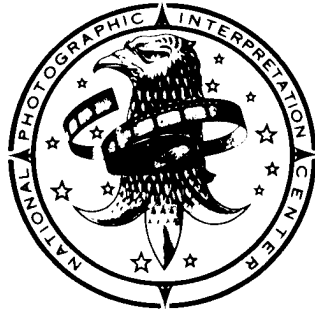


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## **Summary Report**

**NATIONAL PHOTOGRAPHIC  
INTERPRETATION CENTER**

# **NEW TYPE OF ANTENNA IDENTIFIED AT TYPE III-X LAUNCH CONTROL FACILITIES IN THE USSR (TSR)**

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### **NEW TYPE OF ANTENNA IDENTIFIED AT TYPE III-X LAUNCH CONTROL FACILITIES IN THE USSR (TSR)**

(TSR) Continuing analysis of the communications antennas at the new-type Soviet launch control facilities (LCFs)— type III-X silos—reveals that the guyed mast with two horizontal booms, each supporting a five-element Yagi antenna, and designated as PE-EL-01 (Figure 1) has not been deployed at type III-X silos since approximately early- to mid-1977. The antenna that has been deployed at type III-X silos since mid-1977 is the PE-EL-02 (Figure 2), which is the same type of antenna as that previously identified at Pervomaysk and Khmelnitskiy ICBM Complex Command Post Bunkers as well as at Yoshkar-Ola Launch Control Facility B, which is not a new-type LCF.

(TSR) The PE-EL-02 antenna is a guyed mast approximately 26 meters high with a 9-meter diagonal appendage (boom or spar). The appendage is tilted approximately 15 degrees from the vertical. The type and number of elements on the boom cannot be determined. In addition to the differences in number and position of the booms between the PE-EL-01 and PE-EL-02, another distinguishing characteristic is the number and spacing of concrete blocks around the base of the mast (Figures 1 and 2).

(TSR) The function of the PE-EL-02 is probably the same as that of the five-element Yagi antenna (PE-EL-01). This is suggested by the fact both types of antennas have been identified within ten of the 12 SS-17, -18, and -19 ICBM complexes. Just prior to the change from the PE-EL-01 to the PE-EL-02 antenna, it was also observed on photography that beginning in late 1976 hardened Hook and Plus antennas were no longer being deployed at SS-17, -18, or -19 ICBM launch sites.

(TSR) The switch from the PE-EL-01 antenna to the PE-EL-02 antenna along with the apparently discontinued deployment of the hardened Hook and Plus antennas may indicate a change in the deployment concept of phase II antennas.

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